

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference
50509871

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/JP2005/005355

International filing date (day/month/year)
24.03.2005

Priority date (day/month/year)
25.03.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

KYOTO UNIVERSITY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/005355

Box No. I	Basis of this opinion
1.	<p>With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).</p>
2.	<p>With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> in written format</p> <p><input type="checkbox"/> in computer readable form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed.</p> <p><input type="checkbox"/> filed together with the international application in computer readable form.</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search.</p>
3.	<p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p>
4.	<p>Additional comments:</p>

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO
2. Citations and explanations:			
<p>Document 1: JP 2001-508887 A (Massachusetts Institute of Technology), 03 July 2001, Full text & US 6130969 A1 & UA 6101300 A1 & US 2002/118923 A1 & US 6512866 B1 & EP 988569 A & WO 1998/57207 A1 & WO 2003/77023 A1 & CA 2293660 A</p> <p>Document 2: Takuya ASANO et al., "2 Jigen Photonic Kessho ni yoru Hacho Gobunha Device-Mennai Hetero Kozo no Teian-", 2002 Nen (Heisei 14 Nen) Shunki Dai 49 Kai Oyo Butsurigaku Kankei Rengo Koen Yokoshu, Separate Vol. 3, 27 March 2002, page 1039</p> <p>Document 3: Hoshoku SO et al., "Mennai Hetero Photonic Kessho ni yoru Hacho Bungoha Device" 2002 Nen (Heisei 14 Nen), Shuki Dai 63 Kai Oyo Butsurigaku Kai Gakujyutu Koen Yokoshu, Separate Vol. 3, 24 September 2002, page 916</p> <p>Document 4: JP 2002-510400 A (Gorunoto, Ditoma), 02 April 2002, Full text & US 6310991 B1 & EP 985159 B & WO 1998/53350 A1 & DE 19720784 A & DE 59801875 D & AU 7529598 A & AT 207622 T & AU 740986 B & NZ 337209 A & CA 2289201 A</p>			

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PCT/JP2005/005355

Box No. VI

Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2004-233941 A [P, A]	19.08.2004	04.03.2003	06.12.2002
JP 2004-334190 A [P, A]	25.11.2004	16.04.2004	18.04.2003
JP 2004-212416 A [P, A]	29.07.2004	26.12.2002	

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V.2

Document 5: JP 2002-268105 A (Lucent Technologies Inc.), 18 September 2002,
Full text & US 2004/17960 A1 & US 2004/184715 A & CA 2363630 A
Document 6: JP 6-88915 A (Corning Inc.), 29 March 1994, paragraphs 0038 to 0039;
Fig. 4A
& US 5253319 A1
& US 5612171 A1
& EP 557713 A1
& AU 661890 B
& AU 3304093 A
& CA 2084248 A

The inventions of claims 1-15 are neither described in any of the documents cited in
the ISR nor obvious to a party skilled in the art.

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Fig. 4A
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